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5. ISSUED BY		CHA/JM(DMINIS	TERED B	Y (If other than Item 5))	
NASA Glenn Research Center Attn: Jane M. Cochran Exploration Systems Branch 21000 Brookpark Road, Mail Stop 50 Cleveland, OH 44135-3191									
7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, cou	ıntry, State	e and	ZIP Co	de)		8. DELIVERY		
Moog Inc. Space and Defense Group 300 Jamison Road East Aurora, N.Y. 14052-00182						-	F.6) 9. DISCOUNT FOR PE	OTHER (See	,
							10.SUBMIT INVOICES wise specified) TO 1	6 (4 copies unles	s other- SHOWN
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11. SHIP TO/MARK FOR CODE			12.	PAYME	NT WIL	L BE MAD	E BY CO	DE	
See Clauses F.6 and J.2			NASA Glenn Research Center Commercial Accounts, MS 500-303 21000 Brookpark Road Cleveland, OH 44135						
13. AUTHORITY FOR USING OTHER THAN FULL & OPEN COMPETITION: 10 U.S.C. 2304(c) () 41 U.S.C. 253(c) ()						0,000.0			
15A. ITEM NO. 15B. SUPPLIES		,	150	C. QUAI	NTITY	15D. UNI	T 15E. UNIT PRICE	15F. AM	OUNT
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(X) SEC. DESCRIPTION		PAGE(S)) (X)	SEC.		DADT	DESCRIPTION	1050	PAGE(S)
PART I – THE SCHEDULE A SOLICITATION/CONTRACT FORM			PART II – CONTRACT CLAUSES I CONTRACT CLAUSES I 1-13				11-13		
	SOLICITATION/CONTRACT FORM 1 SUPPLIES OR SERVICES AND PRICES/COSTS B 1-2		PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.						
C DESCRIPTION/SPECS./WORK ST.		C-1	571			J 1-2			
D PACKAGING AND MARKING							ESENTATIONS AND I	NSTRUCTIONS	
☑ E INSPECTION AND ACCEPTANCE		E-1		K	REPRE	SENTATI	ONS, CERTIFICATION	NS AND	
F DELIVERIES OR PERFORMANCE		F 1-11			OTHER	STATEM	MENTS OF OFFERORS	S	
G CONTRACT ADMINISTRATION DA	TA	G 1-7		L	INSTR	S., COND	S., AND NOTICES TO	OFFERORS	
H SPECIAL CONTRACT REQUIREM		H 1-10		М			ACTORS FOR AWARE)	
	CTING OFFICER V		IPLE	TE ITEN	M 17 OR	18 AS AI	PPLICABLE		
furnish and deliver all items or perform all the services a above and on any continuation sheets for the considera and obligations of the parties to this contract shall be su following documents: (a) this award/contract, (b) the sol provisions, representations, certifications, and specifical incorporated by reference herein. (attachments are listed 19A. NAME AND TITLE OF SIGNER (Type or pi	n office.) Contractor ag tet forth or otherwise ic tion stated herein. The bject to and governed citation, if any, and (c) tions, as are attached d herein.)	grees to dentified e rights by the) such or	addi abov cons (b) ti	citation Nations or cove and or consists of the his award	umber changes a n any con e followin d/contract	, inclure set forth tinuation shing documen . No furthe	not required to sign this do uding the additions or cha in full above, is hereby ac eets. This award consum ts: (a) the Government's r contractual document is	anges made by you accepted as to the ite imates the contract solicitation and you necessary.	which ms listed which
19B. NAME OF CONTRACTOR MEGG IA				UNITE	ASTAT	ES OF AM	ane M. Cochran	200 047	E SIGNEI
BY Sous A. Casuar (Signature of person authorized to sign)	02/12		BY		Jon	ell	ntracting Officer)	4	/ 12, 2007
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PO 1 PAGE 1 OF	

PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

B.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED (GRC 52.211-105) (MAY 2002)

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this contract as furnished by the Government) and otherwise do all things necessary to, or incident to, performing the following:

Contract Line Item Number (CLIN)

Supplies/Services

QTY

Price

- Actuator Assembly Design & Development 1 Service \$6,576,437.00 for the UPPER STAGE TVC of ARES I as described in the Statement of Work, Attachment A to this contract.
- 2. SPECIAL STUDIES AND ANALYSES
 Effort related to the general Scope
 of Work [in CLIN 1] as defined through
 the issuance of Task Orders in accordance
 with Clause H.2, entitled "Task Ordering
 Procedure", of this contract.

Not to Exceed \$150,000.00 Total Effort

*The Government at its option may or may not Award Task Orders under this CLIN up to the maximum dollar value.

(End of Clause)

B.2 SCOPE OF CONTRACT - SPECIAL STUDIES AND ANALYSES (CLIN 2)

- (a) The estimated cost in CLIN 2 is allocated to Special Studies and Analyses. To accomplish this work, the Contractor shall perform specific tasks that will be defined through the issuance of Task Orders, in accordance with the contract Clause H.2, entitled, "Task Ordering Procedure". Unused hours and unspent cost allocated to a specific Task Order may not be reallocated to any other Task Order without specific direction from the Contracting Officer or Project Manager/COTR.
- (b) Only hours and costs expended against specific written Task Orders authorized by the Contracting Officer or Project Manager/ COTR, as appropriate per Clause H.2 "Task Ordering Procedure", shall be paid

under this contract. Task Orders shall be performed until completed in accordance with their Task Plans. Notwithstanding such authorization, in no event shall the Contractor exceed the Estimated Cost authorized on any task order without written approval from the Contracting Officer.

(End of Clause)

B.3 ESTIMATED COST AND FIXED FEE (NASA 18-52.216-74) (DEC 1991)

- (a) The estimated cost for CLIN 1 of this contract is \$ (b)(4) exclusive of the fixed fee of \$ (b)(4). The total estimated cost and fixed fee for CLIN 1 is \$6,576,437.00.
- (b) The total estimated cost and fixed fee for CLIN 2 is \$150,000.00.

(End of Clause)

B.4 CONTRACT FUNDING (NFS 18-52.232-81) (JUN 1990)

- (a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds Clause, the total amount allotted by the Government to this contract for CLIN 1 is \$ (b)(4) . This allotment covers the following estimated period of performance: through July 31, 2007.
- (b) An additional amount of \$ (b)(4) is obligated under this contract for payment of fee for CLIN 1.
- (c) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds Clause, the total amount allotted by the Government to this contract for CLIN 2 is \$__-0-__. This allotment covers Task Order(s) ___None, at the time of contract award___.
- (d) An additional amount of \$__-0-__ is obligated under this contract for payment of fee for CLIN 2.

(End of Clause)

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT

C.1 STATEMENT OF WORK (GRC 52.211-106) (MAY 2002)

The Statement of work is listed in Section J as Attachment A.

(End of Clause)

SECTION D - PACKAGING AND MARKING

D.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE # DATE TITLE

None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE # DATE TITLE

None included by reference.

(End of Clause)

SECTION E - INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE #

DATE

TITLE

52.246-8 MAY 2001 INSPECTION OF RESEARCH AND DEVELOPMENT--COST-REIMBURSEMENT

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE #

DATE

TITLE

None included by reference.

(End of Clause)

E.2 MATERIAL INSPECTION AND RECEIVING REPORT (NFS 1852.246-72) (AUG 2003)

- (a) At the time of each delivery to the Government under this contract, the Contractor shall furnish a Material Inspection and Receiving Report (DD Form 250 series) prepared in triplicate, an original and 2 copies.
- (b) The Contractor shall prepare the DD Form 250 in accordance with NASA FAR Supplement 1846.6. The Contractor shall enclose the copies of the DD Form 250 in the package or seal them in a waterproof envelope, which shall be securely attached to the exterior of the package in the most protected location.
- (c) When more than one package is involved in a shipment, the Contractor shall list on the DD Form 250, as additional information, the quantity of packages and the package numbers. The Contractor shall forward the DD Form 250 with the lowest numbered package of the shipment and print the words "CONTAINS DD FORM 250" on the package.

(End of Clause)

E.3 INSPECTION AND ACCEPTANCE (GRC 52.246-92)(JAN 1987)

Final inspection and acceptance of all work performed under this contract, including all deliverable items will be performed at destination.

(End of Clause)

SECTION F - DELIVERIES OR PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE # DATE TITLE

52.211-15 SEP 1990 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS

52.242-15 AUG 1989 STOP-WORK ORDER (ALTERNATE I) (APR 1984)

52.247-34 NOV 1991 F.O.B. DESTINATION

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE # DATE TITLE

None included by reference.

(End of Clause)

F.2 PERIOD OF PERFORMANCE - WITH REPORTS (GRC 52.211-91) (MAY 2002)

The period of performance for the technical effort required under this contract is 24 months from the effective date of this contract, except that reports shall be delivered in accordance with the contract clauses related specifically to reports.

(End of Clause)

F.3 DELIVERABLES

The following items are required to be delivered under this contract:

Item #	Item Description	Quantity	Time of Delivery		
1	Engineering Model Hardware	4	August of 2008		
2	Simulation Model	1	December 2007		

(End of Clause)

F.4 REPORTS OF WORK (GRC 52.227-118) (JUN 2006)

The following clause describes those types of plans/reports commonly required by Glenn Research Center; some of them may not be applicable to this contract.

(a) FOB POINT FOR ALL REPORTS. All reports shall be delivered FOB Destination to the recipients of those reports, as identified in clause J.2 of this contract, entitled "Document Distribution Requirements". The Contractor is solely responsible for assuring that delivery is made to every specific recipient named (that is, the Contractor shall not ship multiple copies to one recipient with the expectation that those reports will then be distributed to other named recipients).

- (b) WORK PLAN -- A WORK PLAN IS REQUIRED FOR EVERY CONTRACT!
- (1) Original Work Plan. The Contractor shall have submitted the Work Plan as part of its proposal for this effort. Within 15 days after contract award, an electronic copy shall be uploaded to the Integrated Collaborative Environment (ICE) per Section 1.3 of the Statement of Work with email notification to the personnel in Clause J.2, "Document Distribution Requirements". The Work Plan shall consist of the following:
- (i) A narrative statement reflecting the methods and technical approach to be used by the Contractor in achieving the objectives and requirements set forth in the contract.
- (ii) A program schedule (milestones, tasks, activities, events) in adequate detail to provide reasonable measurement of the technical accomplishments which can be summarized to the cost reporting level of the WBS.
- (iii) Graphs reflecting cumulative estimated costs (exclusive of fee) and man-hours by months for the total contract effort.
- (iv) The Contractor shall address any **Intellectual Property** issues anticipated under this contract, especially its plan for compliance with Export Controls (EAR & ITAR), any anticipated copyright requests, and any claims of "Limited Rights" or "Restricted Rights".
- (v) The Work Plan also provides a description of the contractor's management concepts, practices, approaches, plans, and schedules necessary for accomplishing (managing and controlling) the project tasks described in the Statement of Work. In addition, the plan shall present those management systems to be utilized to define and delegate task assignments and shall define the organizational relationships of the contractor, subcontractors, and the Government. Management Overview A brief description of the project objectives, the system to be furnished, and the equipment (systems), and software that is to be provided. Include a concise summary of the contractor's management organization responsible for performance of the contract, including interrelationships with the Work Breakdown Structure (WBS), within the company and with other contractors, and proposed relationships with the NASA project management. Management Systems This plan shall briefly describe how the various management systems are to be

integrated and used for the overall project management and reporting of:

Project management.

Contract management.

Financial management.

Data requirements management.

Schedules (planning and control).

Performance management (cost/schedule/technical).

Configuration management.

Engineering management.

Logistics management.

Test/verification management.

Subcontractor/vendor management.

Procurement management.

Government furnished property (GFP) management.

Systems engineering management.

Safety, reliability, maintainability, quality assurance.

Automated information management systems.

Communications.

Support equipment management.

Spares philosophy and planning.

Facilities utilization and management.

Project reviews.

Environmental impact management.

It is not intended that this plan duplicate other plans called for in the Data Requirements List. This plan should summarize the overall project and reference or summarize other plans where appropriate and shall reference contractor internal procedures where applicable. Contractor format is acceptable.

- (2) Revisions to Work Plan. The Contractor shall submit revisions to the Work Plan described above:
- (i) when directed by the NASA Project Manager/COTR pursuant to the clause entitled "Technical Direction"; and
- (ii) whenever the contract requirements are changed by appropriate contract modification. The Contractor may submit recommended revisions to the Work Plan when the Contractor believes such revision is deemed desirable for optimum achievement of contract objectives. Every revision to the Work Plan shall be approved by the NASA Project Manager/COTR prior to implementation by the Contractor.
- (c) NEW TECHNOLOGY REPORTS (IF EITHER CLAUSE FAR 52.227-11, PATENT RIGHTS -- RETENTION BY THE CONTRACTOR (SHORT FORM), OR CLAUSE NFS 1852.227-70, NEW TECHNOLOGY, IS APPLICABLE TO THIS CONTRACT). The Contractor shall disclose new technology discovered under this contract as it occurs, using NASA Form 1679. The Final New Technology Report shall be submitted on Form C-3041. Final payment may be withheld pending receipt/approval of the Final New Technology Report.

(d) SMALL BUSINESS REPORTS. If this contract includes FAR clause 52.219-9, semi-annual Small Business Subcontracting Reports (SF294 and SF295) are required.

- (e) COSTING RUN-OUT REPORT (IF REQUIRED BY THE STATEMENT OF WORK). No later than June 30th of each year of this contract, the Contractor shall provide an informal statement that indicates how the funds currently allocated to the contract will be consumed by September 30th of the subject year. In this Costing Run-Out Report, the Contractor shall notify the Contracting Officer if there are any claims that could arise from the deobligation of all or part of the funds that will not be consumed by that date. Funds that will not be consumed by September 30th may be unilaterally deobligated by the government.
- (f) TECHNICAL PROGRESS REPORTS (IF REQUIRED BY THE STATEMENT OF WORK AND/OR NFS CLAUSE 1852.235-74)
- (1) ORAL REPORTS.
- (i) Telephonic reports shall be brief, factual and informal and shall reflect the interests and concerns of the COTR.
- (ii) Oral Presentations / Reports / Video Conferences / Briefings -- An Oral Presentation has the following minimum requirements:
- (A) The Contractor's Project Manager shall personally attend the Oral Presentation, unless the COTR agrees in writing that the Contractor's Project Manager can designate an alternate.
- (B) The Contractor shall prepare for the Oral Presentation by
- (I) providing a draft Agenda to the NASA COTR one week prior to the scheduled Presentation date (said Agenda may be amended by the NASA COTR), and
- (II) establishing whether copies of the vu-graphs are desired by the NASA COTR.
- (C) The Oral Presentation shall address the agenda topics.
- (D) Vu-graphs presented at the Oral Presentation shall be submitted electronically to ICE per Section 1.3 of the Statement of Work with email notification to the addresses indicated in Clause J.2 of this contract, entitled "Document Distribution Requirements" one week after the Oral Presentation. These vu-graphs shall include all relevant material presented at the Oral Presentation. The Contractor shall ensure that a hardcopy of the vu-graphs shall be provided to the NASA Contracting Officer.
- (E) With the vu-graphs, the Contractor shall provide a written follow-up, addressing any open issues raised during the Oral Presentation. The Contractor shall provide a copy of the written follow-up to the NASA Contracting Officer.

(F) The Contractor may imprint its logo on the presentation materials, but those materials may not carry a proprietary legend of any kind.

- (2) WRITTEN REPORTS shall be brief, factual and informal. They may address activities within a specific time-frame (Periodic), or activities that are task-comprehensive (Work-Unit- Based).
- (i) Periodic Reports (Monthly, Quarterly, etc.)
- (A) The report shall reflect a period of performance comparable/traceable to the Contractor's accounting period (such as, an accounting month), from the beginning date to the cutoff (closing) date. NOTE: The initial reporting period depends on the date of Contract award and may be less or more than a full Contractor's accounting period. When the date of Contract award is before the middle of the Contractor's accounting period, the initial reporting period shall be from the date of award to the end of that same accounting period. When the date of Contract award is on or after the middle of the Contractor's accounting period, the initial reporting period shall be from the date of award through the end of the following accounting period. Thereafter, each reporting period shall incorporate one complete Contractor's accounting period.
- (B) The report shall reflect actual progress through the cutoff date. The following report of the same type will begin on the day after the previous period's cutoff date, so that the reporting periods are continuous and uninterrupted.
- (C) Within ten (10) working days after the cutoff date, the Contractor shall submit the report electronically to ICE per Section 1.3 of the Statement of Work with email notification to the addresses indicated in Clause J.2 of this contract, entitled "Document Distribution Requirements".
- (ii) Work Unit-Based Reports (Task, Sub-Task, Phase, Milestone, etc.)
- (A) The report shall cover the entire Work Unit.
- (B) Within fifteen (15) working days after the completion of the Work Unit, the Contractor shall submit the report electronically to ICE per Section 1.3 of the Statement of Work with email notification to the addresses indicated in Clause J.2 of this contract, entitled "Document Distribution Requirements".
- (3) REPORT FORMAT. All Written Reports shall follow the format described below. Oral Reports should reasonably apply the guidance that this format implies.
- (i) A cover page containing:
- (A) Contract number, Task Order Number, and title.

(B) The type of report ("Monthly Technical Progress Report", "Task Report", "Quarterly Narrative Report", etc.), sequence number of the report (when applicable), and the period/unit being reported.

- (C) Contractor's name, address, and organizational segment generating the report.
- (D) Signature of Contractor's cognizant Project Manager (or, if submitted electronically, an unambiguous indicator that the Project Manager has generated/reviewed the report)
- (E) Date of issuance.
- (F) Inclusion of the following statement: "Prepared for NASA Glenn Research Center, Cleveland, OH 44135."
- (ii) Section I -- Technical Progress Summary: A description of the work performed during the report period and the overall technical progress achieved. The current schedule status shall also be addressed in this summary.
- (iii) Section II -- Current Problem(s): A description of any current problem(s) which may impede technical, schedule and/or cost performance, along with proposed corrective action(s). Include an explanation of how the problems could affect the cost and schedule of the reporting categories in the financial and schedule reports if applicable, as well as the effects at the total contract level.
- (iv) Section III -- Risk Management: Include a list of Significant Open Risks and associated Mitigation Plans. Significant Open Risks are those that have the potential to affect major development milestones & goals, such as a delivery delay, a design-freeze date, a cost ceiling, a safety or health concern, environmental impacts, a technical trade-off decision, etc. Further guidance, if needed, is available from the GRC Risk Management reference documents (listed below), which are available at the following web-sites:
- (A) NPG 7120.5A -- "Program and Project Management Processes and Requirements", Chapter 4 -- "Program/Project Management Systems Requirements" http://nodis3.gsfc.nasa.gov/library/lib_docs.cfm?range=7___ (note: the FOUR "blank" spaces in the above address are actually "underline" marks)
- (B) GRC-P2.9 -- "Risk Management" http://nasalivelink.grc.nasa.gov/livelink/livelink?func=ll&objId= 241550&objAction=browsebmsfolder&sort=documentnumber
- (v) Section IV -- Work Planned: A description of the work to be performed during the next monthly reporting period.
- (vi) Section V -- Analysis: Interpretation of the results obtained, recommendations of further action, and discussion of the relationships

between work performed and the ultimate objectives of the contract. Applicable diagrams, sketches, graphs, photographs, and drawings should be included, if they assist in conveying the intended meaning of this Section. The NASA Task Monitor may waive this Section V requirement on a month-by-month basis.

- (g) FINANCIAL MANAGEMENT REPORTS (IF REQUIRED BY THE STATEMENT OF WORK AND/OR THE DOCUMENT DISTRIBUTION REQUIREMENTS)
- (1) The Contractor shall submit the following financial reports pursuant to clause NFS 1852.242-73, "NASA Contractor Financial Management Reporting":
- (i) NASA Form 533M (Monthly Contractor Financial Management Report)
- (ii) NASA Form 533Q (Quarterly Contractor Financial Management Report)
- (iii) Upon written request, the Contracting Officer may authorize an alternative format that provides substantially the same level of detail as the required Form 533(s), but is more compatible with the Contractor's standard accounting/reporting format.
- (2) If NFS 1852.242-74 (Notice of Earned Value Management System) is applicable to this contract, then the Contractor shall submit the Modified Cost Performance Report (NFS 1852.242-76) as required therein.
- (3) The Reporting Categories of the Financial Reports are:
- (i) Direct Labor Categories/Hours/Dollars
- (ii) Labor Overhead Dollars
- (iii) G&A Dollars
- (iv) Other Indirect Dollars
- (v) Travel Dollars
- (vi) Materials/Supplies Dollars
- (vii) Other Direct Cost Dollars
- (viii) COM Dollars
- (ix) Fee Dollars
- (4) Within ten (10) working days after the cutoff date, the Financial Report(s) shall be submitted in the number of copies and to the addresses indicated in Clause J.2 "Document Distribution Requirements". An electronic version shall also be submitted to ICE per Section 1.3 of the Statement of Work.

(5) Preparation. The required report(s) shall be prepared in accordance with the instructions contained in the aforementioned clause, NPG 9501.2 (NASA Contractor Financial Management Reporting) and on the reverse of the forms. The Internet address for NPG 9501.2 is http://ifmp.nasa.gov , then SEARCH the phrase "Monthly Financial Management Report".

- (6) Report Periods, Dates and Submission
- (i) The cutoff date to be used for all 533 reports is the closing date of the Contractor's accounting month that has just been completed.
- (ii) The first 533M report shall be submitted within thirty (30) calendar days after incurrence of cost and, as with all subsequent 533M reports, is due not later than the tenth working day of the month after the close of the Contractor's accounting month. The regular 533Q report (which is a PLANNING report) shall be submitted not later than the tenth (10th) working day of the month proceeding the quarter being reported.
- (iii) The 533 report(s) shall be submitted electronically and in hardcopy format as indicated in Clause J.2, entitled "Document Distribution Requirements".
- (7) IF the value of this contract (including options, whether exercised or unexercised) EXCEEDS \$1 MILLION, and the Contractor is submitting Financial Reports that provide both actual expenditures from past months and estimated expenditures for current/future months, THEN the Contractor shall provide a short explanation (approximately one sentence) of any variance WHICH EXCEEDS 5%, between a previous estimated month-specific expenditure and the actual expenditure experienced. [Example: The March 533M states that Actuals for March were \$80K and Planned expenditures for April are \$100K. The April 533M states that Actuals for April were \$92K, which is a variance of 8% (from the "March Planned" number of \$100K). A short explanation -- "widget prices were unusually low" -- is required.]
- (h) FINAL SCIENTIFIC AND TECHNICAL REPORT (aka "FINAL REPORT"). -- A FINAL REPORT IS REQUIRED FOR EVERY CONTRACT THAT INCLUDES A STATEMENT OF WORK (unless the Statement of Work specifically deletes the Final Report Requirement). The following requirements are supplemental to those stated in NFS clause 1852.235-73 FINAL SCIENTIFIC AND TECHNICAL REPORTS (DEC 2005) (ALT II) (DEC 2005), which is incorporated by reference.
- (1) In addition to the requirements of NPG 2200.2, the format and content of the Final Report shall also follow NASA-SP--1999- 7602 "NASA Publications Guide for Authors", incorporated herein by reference and made a part hereof. This document is available at http://www.sti.nasa.gov [Click on "Publish STI" and scroll down to "NASA-SP--1999-7602", where you can choose the format for viewing the publication].

(2) The Final Report shall include a section entitled "New Technology". This section shall identify all nonpatentable discoveries such as improvements, innovations, and computer codes; and all patentable inventions, whether developed or discovered during the performance of the contract. Possible secondary applications of reported new technology shall also be included in this section.

- (3) The Contractor shall submit an electronic copy of a DRAFT-FINAL REPORT to ICE per Section 1.3 of the Statement of Work with email notification to the NASA COTR within 30 days after completion of the technical effort. The COTR's review will address technical accuracy, conformance with applicable law, policy and publication standards, and a determination of the availability and distribution of NASA-funded documents containing scientific and technical information (STI), (NASA Form 1676, NASA Scientific and Technical Document Availability Authorization (DAA)). Approval or disapproval (in part or in total) of the draft-final report will be accomplished by NASA within thirty (30) days after receipt. Disapproved draft-final reports shall be resubmitted within 10 working days for review following correction of the cited deficiency, unless otherwise directed by the NASA Contracting Officer or NASA Project Manager/COTR.
- (4) Within thirty (30) calendar days after notification of approval of the Contractor's draft-final report, the Contractor shall distribute the approved Final Report electronically to ICE per Section 1.3 of the Statement of Work with email notification to the addresses indicated in Clause J.2, entitled "Document Distribution Requirements" and in hardcopy format as specified in Clause J.2 of this contract, entitled "Document Distribution Requirements". Each hardcopy Final Report shall consist of one reproducible copy of the Final Report itself, plus one set of glossy continuous tone prints of all photographic materials included in the Final Report.
- (5) Printing, duplicating, binding and other reproduction required under this contract is subject to the provisions of the Government Printing and Binding Regulations published by the Joint Committee on Printing, Congress of the United States and the clause at NFS 1852.208-81 entitled "Restrictions on Printing and Duplicating".
- (6) The Contractor is solely responsible for managing the technical effort, the schedule, and the contract funds to ensure delivery of the Draft-Final Report and the Final Report on time. Failure to deliver the Final Report as scheduled, or a request that additional funding be provided by the government to ensure delivery of the Final Report, may result in a Performance Evaluation of "Unsatisfactory", or a reduction in profit/fee equal to the additional cost associated with delivery of the Final Report, or both.
- (i) Approval of Release of Technical Information. The public release of any unclassified technical data first produced in the performance of this contract must be approved in advance by the NASA Project Manager/COTR. An advance copy of any abstract, paper, or presentation must be forwarded to the NASA Project Manager/COTR at least six (6)

weeks before its proposed release. No public presentation or publication of this information may be made without the specific written approval of the NASA Project Manager/COTR. Any questions concerning classified data should be directed to the Glenn Security Classification Officer, with notification to the COTR and the Contracting Officer. The Final Report shall not be released outside NASA until the NASA DAA review has been completed (See Section (h, regarding the Final Report, above) and the availability of the document has been determined. The Final Report is considered available when it is accessible through CASI (See Clause NFS 1852.235-70).

(j) OTHER REPORTS. In the event that a deliverable report, document, etc. is required elsewhere in this contract but is not described in this clause, the Contractor shall notify the Contracting Officer immediately. The government will treat the insertion of a description of an existing contract-required deliverable report/document/etc. as a no-cost administrative change.

(End of Clause)

F.5 ADDITIONAL REPORTS OF WORK -- RESEARCH AND DEVELOPMENT (NFS 1852.235-74) (FEB 2003) (GRC MODIFICATION) (MAY 2003)

In addition to the final report required under this contract, the Contractor shall submit the following report(s) to the Contracting Officer:

- (a) Monthly progress reports. The Contractor shall submit separate monthly reports of all work accomplished during each month of contract performance. Reports shall follow the formatting and content guidelines contained in paragraph (g)(2) of clause GRC 52.227-118, Reports of Work.
- (b) Quarterly progress reports. The Contractor shall submit separate quarterly reports of all work accomplished during each three-month period of contract performance. Reports shall follow the formatting and content guidelines contained in paragraph (G)(2) of clause GRC 52.227-118, Reports of Work.
- (c) Submission dates. Monthly and quarterly reports shall be submitted as specified in paragraph (g) (3) of clause GRC 52.227-118. No monthly report need be submitted for the third month of contract effort for which a quarterly report is required. No quarterly report need be submitted for the final three months of contract effort since that period will be covered in the final report. The final report shall be submitted within the timeframes specified in paragraphs (h) (3) and (h) (4) of clause GRC 52.227-118.

(End of Clause)

F.6 F.O.B. POINT - GLENN RESEARCH CENTER (GRC 52.247-91) (AUG 2002)

The items to be delivered under this contract shall be shipped F.O.B. destination to:

NASA Glenn Research Center 21000 Brookpark Road Cleveland, OH 44135.

Rail facilities are not available.

(End of Clause)

SECTION G NNC07CA01C

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE #

DATE

TITLE

None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE #

DATE

TITLE

1852.216-75 DEC 1988 PAYMENT OF FIXED FEE

1852.227-70 MAY 2002 NEW TECHNOLOGY

1852.242-73 NOV 2004 NASA CONTRACTOR FINANCIAL MANAGEMENT

REPORTING

(End of Clause)

G.2 SUBMISSION OF VOUCHERS FOR PAYMENT (NFS 1852.216-87) (MAR 1998) (GRC MODIFICATION) (APR 1998)

- (a) The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this contract is indicated below. Public vouchers for payment of costs shall include a reference to the number of this contract.
- (b)(1)If the contractor is authorized to submit interim cost vouchers directly to the NASA paying office, they shall be prepared in accordance with paragraph (c) of this clause and submitted to:

NASA Glenn Research Center Commercial Accounts Mail Stop 500-303 21000 Brookpark Road Cleveland, OH 44135

- (2) For any period that the Defense Contract Audit Agency has authorized the Contractor to submit interim vouchers directly to the Government paying office, interim vouchers are not required to be sent to the Auditor, and are considered to be provisionally approved for payment, subject to final audit.
- (3) Copies of vouchers should be submitted as follows:

- (i) Copy 1 NASA Contracting Officer
- (ii) Copy 2 DCAA Auditor
- (iii) Copy 3 Contractor
- (iv) Copy 4 Contract Administration Office, if delegated
- (v) Copy 5 GRC Project Manager
- (c) If the contractor is not authorized to submit interim cost vouchers directly to the paying office as described in paragraph
- (b), the contractor shall prepare and submit vouchers as follows:
- (1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to the cognizant DCAA office
- (2) Five copies of SF 1034A, SF 1035A, or equivalent Contractor's attachment to the following offices by insertion in the memorandum block of their names and addressees:
- (i) Copy 1 NASA Contracting Officer
- (ii) Copy 2 DCAA Auditor
- (iii) Copy 3 Contractor
- (iv) Copy 4 Contract Administration Office, if delegated
- (v) Copy 5 GRC Project Manager
- (3) The Contracting Officer may designate other recipients as required.
- (d) Public vouchers for payment of fee shall be prepared similarly to the procedure in paragraph (c) of this clause, and be forwarded to:

NASA - Glenn Research Center Commercial Accounts Mail Stop 500-303 21000 Brookpark Road Cleveland, OH 44135

This is the designated billing office for fee vouchers for purposes of the Prompt Payment clause of this contract.

(e) In the event that amounts are withheld from payment in accordance with provisions of this contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.

(End of Clause)

G.3 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (NASA 1852.227-72) (JUL 1997) (GRC FILL IN)

(a) For purposes of administration of the clause of this contract entitled "New Technology" or "Patent Rights -- Retention by the Contractor (Short Form)", whichever is included, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

New Technology Representative Technology Transfer & Partnership Office 21000 Brookpark Road Cleveland, OH 44135

> Patent Representative Office of Chief Counsel 21000 Brookpark Road Cleveland, OH 44135

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquires or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or "Patent Rights--Retention by the Contractor (Short Form)" clause, unless otherwise authorized or directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 1827.305-370 of the NASA FAR Supplement.

(End of Clause)

G.4 TECHNICAL DIRECTION (NFS 1852.242-70) (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270. "Technical Direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.

(b) The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that--

- (1) Constitutes an assignment of additional work outside the statement of work;
- (2) Constitutes a change as defined in the changes clause;
- (3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;
- (4) Changes any of the expressed terms, conditions, or specifications of the contract; or
- (5) Interferes with the Contractor's rights to perform the terms and conditions of the contract.
- (c) All technical direction shall be issued in writing by the COTR.
- (d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority.
- If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) above, the Contractor shall not proceed by shall notify the Contracting Officer in writing within 5 working days after receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the Contractor in writing within 30 days that the instruction or direction is—
- (1) Rescinded in its entirety; or
- (2) Within the requirements of the contract and does not constitute a change under the changes clause of the contract, and that the Contractor should proceed promptly with its performance.
- (e) A failure of the Contractor and Contracting Officer to agree that the instruction or direction is both within the requirements of the contract and does not constitute a change under the changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.
- (f) Any action(s) taken by the Contractor in response to any direction given by any person other than the Contracting Officer or the COTR shall be at the Contractor's risk.

(End of Clause)

G.5 APPROVALS BY THE NASA PROJECT MANAGER (GRC 52.242-91) (AUG 2002)

(a) Unless otherwise stated in the Statement of Work (SOW), all required approvals (or disapprovals) shall be furnished by the NASA Project Manager within ten (10) days after receipt of the data to be approved. In the event the data is disapproved, the Contractor shall make the necessary corrections and resubmit the data to the NASA Project Manager within ten (10) days after receipt of data to be corrected. The NASA Project Manager's disapproval or revision to the items submitted shall be within the general Scope of Work stated in the contract, and shall be in accordance with the "Technical Direction" clause of this contract.

- (b) All requests for approval by the NASA Project Manager shall be submitted in writing by the Contractor. Simultaneously with such submission, a copy of the transmittal letter shall be furnished to the Contracting Officer.
- (c) If notification of approval or disapproval is not received within the time period set forth in paragraph (a) above, the Contractor shall assume that approval has been granted.

(End of Clause)

G.6 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR) (GRC 52.242-92) (AUG 2002)

A Contracting Officer's Technical Representative (COTR) will be delegated under this contract pursuant to the clause at 1852.242-70 entitled "Technical Direction". The contractor will receive a copy of this delegation at the time of award of any contract or shortly thereafter. This delegation will take place on a NASA Form 1634 and will list not only the COTR delegated, but also his/her duties and responsibilities. Throughout this solicitation/contract there may be references made to a variety of different titles, including "NASA Project Manager", "NASA Technical Monitor", and "NASA Contract Monitor". Unless specifically stated otherwise, these titles all refer to the COTR.

(End of Clause)

G.7 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (NFS 1852.245-73) (OCT 2003)

(a) The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance with the provisions of 1845.505-14, the instructions on the form, subpart 1845.71, and any supplemental instructions for the current reporting period issued by NASA.

(b) (1) Subcontractor use of NF 1018 is not required by this clause; however, the Contractor shall include data on property in the possession of subcontractors in the annual NF 1018.

- (2) The Contractor shall mail the original signed NF 1018 directly to the cognizant NASA Center Deputy Chief Financial Officer, Finance, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.
- (3) One copy shall be submitted (through the Department of Defense (DOD) Property Administrator if contract administration has been delegated to DOD) to the following address: NASA Glenn Research Center Logistics and Technical Information Division, 21000 Brookpark Road, Mail Stop 21-9, Cleveland, OH 44135, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.
- (c)(1) The annual reporting period shall be from October 1 of each year through September 30 of the following year. The report shall be submitted in time to be received by October 15. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 15. Some activity may be estimated for the month of September, if necessary, to ensure the NF 1018 is received when due. However, contractors' procedures must document the process for developing these estimates based on planned activity such as planned purchases or NASA Form 533 (NF 533 Contractor Financial Management Report) cost estimates. It should be supported and documented by historical experience or other corroborating evidence, and be retained in accordance with FAR Subpart 4.7, Contractor Records Retention. Contractors shall validate the reasonableness of the estimates and associated methodology by comparing them to the actual activity once that data is available, and adjust them accordingly. addition, differences between the estimated cost and actual cost must be adjusted during the next reporting period. Contractors shall have formal policies and procedures, which address the validation of NF 1018 data, including data from subcontractors, and the identification and timely reporting of errors. The objective of this validation is to ensure that information reported is accurate and in compliance with the NASA FAR Supplement. If errors are discovered on NF 1018 after submission, the contractor shall contact the cognizant NASA Center Industrial Property Officer (IPO) within 30 days after discovery of the error to discuss corrective action.
- (2) The Contracting Officer may, in NASA's interest, withhold payment until a reserve not exceeding \$25,000 or 5 percent of the amount of the contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports in accordance with 1845.505-14 and any supplemental instructions for the current reporting period issued by NASA. Such reserve shall be withheld until the Contracting Officer has determined that NASA has received the required reports.

The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(d) A final report shall be submitted within 30 days after disposition of all property subject to reporting when the contract performance period is complete in accordance with (b)(1) through (3) of this clause.

End of Clause)

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE #

DATE

TITLE

None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE #	DAT	E TITLE
1052 222 70	3 DD 2002	CATIONY AND HEAL OIL
1852.223-70	APR 2002	SAFETY AND HEALTH
1852.223-74	MAR 1996	DRUG- AND ALCOHOL-FREE WORKFORCE
1852.223-75	FEB 2002	MAJOR BREACH OF SAFETY OR SECURITY
1852.225-70	FEB 2000	EXPORT LICENSES
		Insert in Paragraph (b): NASA
		Installations
1852.235-73	DEC 2005	FINAL SCIENTIFIC AND TECHNICAL REPORTS
		(ALTERNATE II) (DEC 2005)
1852.244-70	APR 1985	GEOGRAPHIC PARTICIPATION IN THE
		AEROSPACE PROGRAM

(End of Clause)

H.2. TASK ORDERING PROCEDURE (NFS 1852.216-80) (October 1996)

Performance under CLIN 2 of this contract is subject to the following ordering procedure.

- (a) Only the Contracting Officer may issue task orders to the Contractor, providing specific authorization or direction to perform work within the scope of the contract and as specified in the schedule. The Contractor may incur costs under this contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.
- (b) Prior to issuing a task order, the Contracting Officer shall provide the Contractor with the following data:
- (1) A functional description of the work identifying the objectives or results desired from the contemplated task order.

(2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.

- (3) A request for a task plan from the Contractor to include the technical approach, period of performance, appropriate cost information, and any other information required to determine the reasonableness of the Contractor's proposal.
- (c) Within fourteen calendar days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request.
- (d) After review and any necessary discussions, the Contracting Officer may issue a task order to the Contractor containing, as a minimum, the following:
- (1) Date of the order.
- (2) Contract number and order number.
- (3) Functional description of the work identifying the objectives or results desired from the task order, including special instructions or other information necessary for performance of the task.
- (4) Performance standards, and where appropriate, quality assurance standards.
- (5) Maximum dollar amount authorized (cost and fee or price). This includes allocation of award fee among award fee periods, if applicable.
- (6) Any other resources (travel, materials, equipment, facilities, etc.) authorized.
- (7) Delivery/performance schedule including start and end dates.
- (8) If contract funding is by individual task order, accounting and appropriation data.
- (e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within two calendar days after receipt of the task order.
- (f) If time constraints do not permit issuance of a fully defined task order in accordance with the procedures described in paragraphs (a) through (d), a task order which includes a ceiling price may be issued.
- (g) The Contracting Officer may amend tasks in the same manner in which they were issued.

(h) In the event of a conflict between the requirements of the task order and the Contractor's approved task plan, the task order shall prevail.

(End of Clause)

H.3 Ordering (FAR 52.216-18) (Oct 1995)

- (a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from the effective date of the contract through the completion date of the contract.
- (b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.
- (c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

(End of Clause)

H.4 Order Limitations (FAR 52.216-19) (Oct 1995)

- (a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than -any value-, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.
 - (b) Maximum order. The Contractor is not obligated to honor-
- (1) Any order for a single item in excess of \$150,000.00;
- (2) Any order for a combination of items in excess of \$150,000.00; or
- (3) A series of orders from the same ordering office within 2 days that together call for quantities exceeding the limitation in paragraph (b)(1) or (2) of this section.
- (c) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section. [NOTE: This is NOT a requirements contract.]
- (d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within five days after issuance, with written notice stating the Contractor's intent not to ship the item

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(or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of Clause)

H.5 Additional Task Order Procedures

In addition to the procedures described in NFS 1852.216-80, the following procedures apply to all task Orders issued under this contract.

- (a) Verbal Task Orders are not authorized.
- (b) Notwithstanding any other Term or Condition or Clause in this contract, the Contractor is required to provide Task Order Specific Reports (such as; Individual Task Order 5533 Reports, or Technical Reports) for Active Task Orders only.
- (c) Task Orders may be issued by any Contracting Officer situated at NASA Glenn Research Center.
- (d) The customary procedure for issuing Task Orders under this contract is set forth herein:
 - (1) The Contracting Officer will issue a draft Task Order, including a Statement of Work and other relevant information, and specify a proposal due date.
 - (2) The Contractor shall provide a responsive cost & technical proposal to the NASA Contracting Officer. The cost proposal shall be based on the pricing rates specified in the Task Order Pricing Rates, below.
 - (3) NASA will review the Contractor's proposal. Negotiations may or may not occur. NASA will determine unilaterally whether or not to sign the Task Order and thereby authorize performance of the specific Task Order Statement of Work.

The Contractor shall notify the NASA Contracting Officer in writing of any planned or approved accounting changes, or of any substantial increase in the Contractor's business base, that would impact the pricing rates for indirect costs. The notice shall demonstrate how the changes will impact those pricing rates. The parties agree to negotiate an appropriate change to the pricing rates if necessary to assure that Task Order cost estimates are consistent with approved accounting changes or are not unrealistically high based on lowered indirect rates resulting from Contractor business base growth.

0.00	Contract	Contract	Contract
Task Order Pricing Rates	FY 2007	FY 2008	FY 2009
Indirect Rates			
Labor Overhead	(b)(4)	(b)(4)	(b)(4)
Engineering	(b)(4)	(b)(4)	(b)(4)
Drafting	(b)(4)	(b)(4)	(b)(4)
Program Management	(b)(4)	(b)(4)	(b)(4)
Development Lab Tech	(b)(4)	(b)(4)	(b)(4)
Quality Engineering			
Material Handling	(b)(4)	(b)(4)	(b)(4)
G & A	(b)(4)	(b)(4)	(b)(4)
Profit Rate	(b)(4)	(b)(4)	(b)(4)

(End of Clause)

H.6 RESTRICTIONS ON PRINTING AND DUPLICATING (NASA 1852.208-81) (NOV 2004)

- (a) The Contractor may duplicate or copy any documentation required by this contract in accordance with the provisions of the Government Printing and Binding Regulations, No. 26, S. Pub 101-9, U.S. Government Printing Office, Washington, DC, 20402, published by the Joint Committee on Printing, U.S. Congress.
- (b) The Contractor shall not perform, or procure from any commercial source, any printing in connection with the performance of work under this contract. The term "printing" includes the processes of composition, platemaking, presswork, duplicating, silk screen processes, binding, microform, and the end items of such processes and equipment.
- (c) The Contractor is authorized to duplicate or copy production units provided the requirement does not exceed 5,000 production units of any one page or 25,000 units in the aggregate of multiple pages. Such pages may not exceed a maximum image size of 10-3/4 by 14-1/4 inches. A "production unit" is one sheet, size $8-1/2 \times 11$ inches (215 x 280 mm), one side only, and one color ink.
- (d) This clause does not preclude writing, editing, preparation of manuscript copy, or preparation of related illustrative material as a part of this contract, or administrative duplicating/copying (for example, necessary forms and instructional materials used by the Contractor to respond to the terms of the contract).
- (e) Costs associated with printing, duplicating, or copying in excess of the limits in paragraph (c) of this clause are unallowable without prior written approval of the Contracting Officer. If the Contractor has reason to believe that any activity required in fulfillment of the contract will necessitate any printing or substantial duplicating or

copying, it immediately shall provide written notice to the Contracting Officer and request approval prior to proceeding with the activity. Requests will be processed by the Contracting Officer in accordance with the provisions of the Government Printing and Binding Regulations, NFS 1808.802, and NPR 1490.5, NASA Procedural Requirements for Printing, Duplicating, and Copying Management.

(f) The Contractor shall include in each subcontract which may involve a requirement for any printing, duplicating, and copying in excess of the limits specified in paragraph (c) of this clause, a provision substantially the same as this clause, including this paragraph (f).

(End of Clause)

H.7 MINIMUM INSURANCE COVERAGE (NASA 1852.228-75) (OCT 1988)

The Contractor shall obtain and maintain insurance coverage as follows for the performance of this contract:

- (a) Worker's compensation and employer's liability insurance as required by applicable Federal and state workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical. The employer's liability coverage shall be at least \$100,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.
- (b) Comprehensive general (bodily injury) liability insurance of at least \$500,000 per occurrence.
- (c) Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury liability and \$20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.
- (d) Comprehensive general and motor vehicle liability policies shall contain a provision worded as follows:

"The insurance company waives any right of subrogation against the United States of America which may arise by reason of any payment under the policy."

(e) When aircraft are used in connection with performing the contract, aircraft public and passenger liability insurance of at least \$200,000 per person and \$500,000 per occurrence for bodily injury, other than passenger liability, and \$200,000 per occurrence for property damage. Coverage for passenger liability bodily injury shall be at least \$200,000 multiplied by the number of seats or passengers, whichever is greater.

(End of Clause)

H.8 RELEASE OF SENSITIVE INFORMATION (NFS 1852.237-73) (JUN 2005)

- (a) As used in this clause, "sensitive information" refers to information, not currently in the public domain, that the Contractor has developed at private expense, that may embody trade secrets or commercial or financial information, and that may be sensitive or privileged.
- (b) In accomplishing management activities and administrative functions, NASA relies heavily on the support of various service providers. To support NASA activities and functions, these service providers, as well as their subcontractors and their individual employees, may need access to sensitive information submitted by the Contractor under this contract. By submitting this proposal or performing this contract, the Contractor agrees that NASA may release to its service providers, their subcontractors, and their individual employees, sensitive information submitted during the course of this procurement, subject to the enumerated protections mandated by the clause at 1852.237-72, Access to Sensitive Information.
- (c) (1) The Contractor shall identify any sensitive information submitted in support of this proposal or in performing this contract. For purposes of identifying sensitive information, the Contractor may, in addition to any other notice or legend otherwise required, use a notice similar to the following:

Mark the title page with the following legend:

"This proposal or document includes sensitive information that NASA shall not disclose outside the Agency and its service providers that support management activities and administrative functions. To gain access to this sensitive information, a service provider's contract must contain the clause at NFS 1852.237-72, Access to Sensitive Information. Consistent with this clause, the service provider shall not duplicate, use, or disclose the information in whole or in part for any purpose other than to perform the services specified in its contract. This restriction does not limit the Government's right to use this information if it is obtained from another source without restriction. The information subject to this restriction is contained in pages [insert page numbers or other identification of pages]."

Mark each page of sensitive information the Contractor wishes to restrict with the following legend:

"Use or disclosure of sensitive information contained on this page is subject to the restriction on the title page of this proposal or document."

- (2) The Contracting Officer shall evaluate the facts supporting any claim that particular information is "sensitive." This evaluation shall consider the time and resources necessary to protect the information in accordance with the detailed safeguards mandated by the clause at 1852.237-72, Access to Sensitive Information. However, unless the Contracting Officer decides, with the advice of Center counsel, that reasonable grounds exist to challenge the Contractor's claim that particular information is sensitive, NASA and its service providers and their employees shall comply with all of the safeguards contained in paragraph (d) of this clause.
- (d) To receive access to sensitive information needed to assist NASA in accomplishing management activities and administrative functions, the service provider must be operating under a contract that contains the clause at 1852.237-72, Access to Sensitive Information. This clause obligates the service provider to do the following:
- (1) Comply with all specified procedures and obligations, including the Organizational Conflicts of Interest Avoidance Plan, which the contract has incorporated as a compliance document.
- (2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.
- (3) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
- (4) Allow access to sensitive information only to those employees that need it to perform services under its contract.
- (5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.
- (6) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in its contract and to safeguard it from unauthorized use and disclosure.
- (7) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
- (8) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.

(e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at 1852.204-76, Security Requirements for Unclassified Information Technology Resources. The Security Requirements clause requires the service provider to implement an Information Technology Security Plan to protect information processed, stored, or transmitted from unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.

- (f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.
- (g) The Contractor shall insert this clause, including this paragraph (g), suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

(End of Clause)

H.9 DRAWINGS AND DATA REQUIRED FOR APPROVAL (GRC 52.211-103) (MAY 2002)

- (a) The Contractor shall submit for approval copies of the drawings and/or data identified in the specifications/SOW, in accordance with the DRD deliverables listed in the SOW.
- (b) Should any of the drawings and/or data be revised by the Contractor subsequent to submittal but prior to return by the Government, copies of the revised documents shall be promptly submitted with the revisions clearly identified.
- (c) All Contractor submittals shall be accomplished by a transmittal letter identifying the material submitted and the contract number, and addressed to:

NASA Glenn Research Center
Attn: Contracting Officer, Contract NNC07CA01C
21000 Brookpark Road, Mail Stop 500-319
Cleveland, OH 44135

(d) If the Contractor does not return any required corrected drawings or data within the said period of time, or if the corrected drawings or data are not approved by the Government, the Government shall be entitled to invoke the provisions of the clause entitled "Default".

(e) Approval by the Government, pursuant to this Clause, shall not be construed as complete approval, but will indicate only that the general method of construction and/or fabrication and detailing is satisfactory. Approval of such drawings or data will not relieve the Contractor of the responsibility for any error which may exist. In the event that drawings or data marked "Approved" or "Approved as Noted" reflect information which is not in full conformance with the contract specifications, the Contractor shall notify the Contracting Officer immediately, since any approval of drawings or data is not to be construed as a change in specifications.

(End of Clause)

H.10 ENVIRONMENTAL REQUIREMENTS

All work performed under this contract shall be done in accordance with all applicable Federal, State and Local Environmental Regulations, NASA Environmental Policy and the NASA GRC Environmental Programs Manual (http://smad-ext.grc.nasa.gov/emo/pub/epm/epm-manual.pdf. The individual projects supported by this contract may require further environmental review.

(End of Clause)

H.11 IRAN NON-PROLIFERATION ACT APPLICABILITY

Contracts awarded under this solicitation are subject to all applicable U.S. nonproliferation laws, regulations and policies, including the Iran Non-Proliferation Act (INA).

(End of Clause)

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE #	DATE TI	TLE
52.202-1 52.203-3 52.203-5 52.203-6	JUL 2004 APR 1984 APR 1984 JUL 1995	DEFINITIONS GRATUITIES COVENANT AGAINST CONTINGENT FEES RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7 52.203-8	JUL 1995 JAN 1997	ANTI-KICKBACK PROCEDURES CANCELLATION, RESCISSION AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	SEP 2005	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.204-4	AUG 2000	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER
52.204-7 52.209-6	JUL 2006 JAN 2005	CENTRAL CONTRACTOR REGISTRATION PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.215-2 52.215-8	JUN 1999 OCT 1997	AUDIT AND RECORDSNEGOTIATION ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT
52.215-14 52.215-15	OCT 1997 OCT 2004	INTEGRITY OF UNIT PRICES PENSION ADJUSTMENTS AND ASSET REVERSIONS
52.215-18	JUL 2005	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS
52.215-19 52.215-21	OCT 1997 OCT 1997	NOTIFICATION OF OWNERSHIP CHANGES REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA — MODIFICATIONS (ALTERNATE II) (OCT 1997) (ALTERNATE III) (OCT 1997) (ALTERNATE IV) (OCT 1997) Insert in (b) and (d) "will be specified when and if

		proposals for contract modifications are requested".
52.216-7	DEC 2002 Insert "30" in	ALLOWABLE COST AND PAYMENT Paragraph (a)(3).
52.216-8	MAR 1997	FIXED FEE
52.219-4	JUL 2005	NOTICE OF PRICE EVALUATION PREFERENCE
50.040.0	MAN/ 0004	FOR HUBZONE SMALL BUSINESS CONCERNS
52.219-8 52.219-9	MAY 2004 JUL 2005	UTILIZATION OF SMALL BUSINESS CONCERNS SMALL BUSINESS SUBCONTRACTING PLAN
32.213-3	JOL 2003	(ALTERNATE II) (OCT 2001)
52.219-16	JAN 1999	LIQUIDATED DAMAGES SUBCONTRACTING PLAN
52.219-23	SEP 2005	NOTICE OF PRICE EVALUATION ADJUSTMENT
		FOR SDB CONCERNS Insert in paragraph (b): _10%_
52.219-25	OCT 1999	SMALL DISADVANTAGED BUSINESS
02.210 20	001 1000	PARTICIPATION PROGRAM - DISADVANTAGED
		STATUS AND REPORTING
52.222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR
52.222-2	JUL 1990	DISPUTES PAYMENT FOR OVERTIME PREMIUMS
52.222-2		in paragraph (a).
52.222-4	JUL 2005	CONTRACT WORK HOURS AND SAFETY
		STANDARDS ACT - OVERTIME COMPENSATION
52.222-20	DEC 1996	WALSH-HEALEY PUBLIC CONTRACTS ACT
52.222-21 52.222-26	FEB 1999 APR 2002	PROHIBITION OF SEGREGATED FACILITIES EQUAL OPPORTUNITY
52.222-26	DEC 2001	EQUAL OPPORTUNITY FOR SPECIAL DISABLED
02.222		VETERANS, VETERANS OF THE VIETNAM ERA,
		AND OTHER ELIGIBLE VETERANS
52.222-36		AFFIRMATIVE ACTION FOR WORKERS WITH
52.222-37		DISABILITIES EMPLOYMENT REPORTS ON SPECIAL
02.222-01		DISABLED VETERANS, VETERANS OF THE
		VIETNAM ERA, AND OTHER ELIGIBLE
		VETERANS
52.222-50		COMBATING TRAFFICKING IN PERSONS
52.223-3		HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (ALTERNATE I) (JUL
		1995)
	Insert "none" i	n paragraph (b).
52.223-6		DRUG-FREE WORKPLACE
52.223-14		TOXIC CHEMICAL RELEASE REPORTING
52.225-1 52.225-8		BUY AMERICAN ACTSUPPLIES DUTY-FREE ENTRY
02.220 0		graph (g)(4) as follows:
		A Glenn Research Center
		es:from Tariff Schedule
E0 00E 10		inistration Office: NNC07CA01C, Contracting Officer
52.225-13		RESTRICTIONS ON CERTAIN FOREIGN PURCHASES

	52.227-1	JUL 1995	AUTHORIZATION AND CONSENT (ALTERNATE I)
	52.227-2	AUG 1996	(APR 1984) NOTICE AND ASSISTANCE REGARDING PATENT
			AND COPYRIGHT INFRINGEMENT
	52.227-11	JUN 1997	PATENT RIGHTSRETENTION BY THE
			CONTRACTOR (SHORT FORM) (AS MODIFIED BY
	50 007 44	II IN 4007	NFS 1852.227-11) (MAY 2002)
	52.227-14	JUN 1987	RIGHTS IN DATAGENERAL As modified by
	52.227-16	JUN 1987	1852.227-14 NASA FAR Supplement (OCT 1995)
	52.227-10	JAN 1997	ADDITIONAL DATA REQUIREMENTS TECHNICAL DATA DECLARATION, REVISION,
	52.221-21	JAN 1991	AND WITHHOLDING OF PAYMENTMAJOR
			SYSTEMS
	52.228-7	MAR 1996	INSURANCELIABILITY TO THIRD PERSONS
	52.230-2	APR 1998	COST ACCOUNTING STANDARDS
	52.230-6	APR 2005	ADMINISTRATION OF COST ACCOUNTING
			STANDARDS
	52.232-9	APR 1984	LIMITATION ON WITHHOLDING OF PAYMENTS
	52.232-17	JUN 1996	INTEREST
	52.232-18	APR 1984	AVAILABILITY OF FUNDS
	52.232-22	APR 1984	LIMITATION OF FUNDS
	52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
	52.232-25	OCT 2003	PROMPT PAYMENT
	52.232-34	MAY 1999	PAYMENT BY ELECTRONIC FUNDS TRANSFER
			OTHER THAN CENTRAL CONTRACTOR REGISTRATION
		Insert "the d	ate specified for receipt of offers" in Paragraph (b)(1).
	52.233-1	JUL 2002	DISPUTES (ALTERNATE I) (DEC 1991)
	52.233-3	AUG 1996	PROTEST AFTER AWARD (ALTERNATE I) (JUN
	02.200	7100 1000	1985)
	52.233-4	OCT 2004	APPLICABLE LAW FOR BREACH OF CONTRACT
			CLAIM
	52.242-1	APR 1984	NOTICE OF INTENT TO DISALLOW COSTS
	52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
	52.242-4	JAN 1997	CERTIFICATION OF FINAL INDIRECT COSTS
	52.242-13	JUL 1995	BANKRUPTCY
	52.243-2	AUG 1987	CHANGESCOST-REIMBURSEMENT
	E0.044.0	ALIO 4000	(ALTERNATE V) (APR 1984)
	52.244-2 52.244-5	AUG 1998	SUBCONTRACTS COMPETITION IN SUBCONTRACTING
	52.244-5	DEC 1996 FEB 2006	COMPETITION IN SUBCONTRACTING SUBCONTRACTS FOR COMMERCIAL ITEMS
	52.245-5	MAY 2004	GOVERNMENT PROPERTY (COST-
	02.240-0	WAT 2004	REIMBURSEMENT, TIME-AND- MATERIAL, OR
			LABOR-HOUR CONTRACTS)
	52.245-9	AUG 2005	USE AND CHARGES
	52.245-18	FEB 1993	SPECIAL TEST EQUIPMENT
	52.245-19	APR 1984	GOVERNMENT PROPERTY FURNISHED "AS IS"
	52.246-24	FEB 1997	LIMITATION OF LIABILITY HIGH VALUE ITEMS
	52.247-1	FEB 2006	COMMERCIAL BILL OF LADING NOTATIONS
	52.249-6	MAY 2004	TERMINATION (COST-REIMBURSEMENT)
	52.249-14	APR 1984	EXCUSABLE DELAYS
1	52.253-1	JAN 1991	COMPUTER GENERATED FORMS

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE #	DATE TI	ΓLE
1852.203-70	JUN 2001	DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS
1852.216-89 1852.219-74	JUL 1997 SEP 1990	ASSIGNMENT AND RELEASE FORMS USE OF RURAL AREA SMALL BUSINESSES
1852.219-76	JUL 1997	NASA 8 PERCENT GOAL
1852.219-77	MAY 1999	NASA MENTOR-PROTÉGÉ PROGRAM
1852.219-79	MAR 1999	MENTOR REQUIREMENTS AND EVALUATION
1852.235-70	FEB 2003	CENTER FOR AEROSPACE INFORMATION
1852.243-71	MAR 1997	SHARED SAVINGS

(End of Clause)

I.2 RIGHTS IN DATA--GENERAL (FAR 52.227-14) (JUN 1987) AS MODIFIED BY NFS 18.52.227-14 (OCT 1995)

(a) Definitions. "Computer software," as used in this clause, means computer programs, computer data bases, and documentation thereof.

"Data," as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.

"Form, fit, and function data," as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements; except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

"Limited rights," as used in this clause, means the rights of the Government in limited rights data as set forth in the Limited Rights Notice of subparagraph (g)(2) if included in this clause.

"Limited rights data," as used in this clause, means data (other than computer software) that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications thereof.

"Restricted computer software," as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of such computer software.

"Restricted rights," as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of subparagraph (g)(3) if included in this clause, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract, including minor modifications of such computer software.

"Technical data," as used in this clause, means data (other than computer software) which are of a scientific or technical nature.

"Unlimited rights," as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

- (b) Allocation of rights. (1) Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights in-
 - (i) Data first produced in the performance of this contract;
 - (ii) Form, fit, and function data delivered under this contract;
- (iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract; and
- (iv) All other data delivered under this contract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause.
 - (2) The Contractor shall have the right to--
- (i) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, unless provided otherwise in paragraph (d) of this clause;
- (ii) Protect from unauthorized disclosure and use those data which are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause;
- (iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and
- (iv) Establish claim to copyright subsisting in data first produced in the performance of this contract to the extent provided in subparagraph (c)(1) of this clause.
- (c) Copyright. (1) Data first produced in the performance of this contract. Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the Contracting Officer, claim to copyright subsisting in scientific and technical articles based on or containing data first produced in the performance of this contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the Contracting Officer is required to establish claim to copyright subsisting in

all other data first produced in the performance of this contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For data other than computer software the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting in its behalf, a paid-up nonexclusive, irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly by or on behalf of the Government.

- (2) Data not first produced in the performance of this contract. The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract and which contains the copyright notice of 17 U.S.C. 401 or 402, unless the Contractor identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause; provided, however, that if such data are computer software the Government shall acquire a copyright license as set forth in subparagraph (g)(3) of this clause if included in this contract or as otherwise may be provided in a collateral agreement incorporated in or made part of this contract.
- (3) Removal of copyright notices. The Government agrees not to remove any copyright notices placed on data pursuant to this paragraph (c), and to include such notices on all reproductions of the data.
- (d) Release, publication and use of data. (1) The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, except to the extent such data may be subject to the Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this contract.
- (2) The Contractor agrees that to the extent it receives or is given access to data necessary for the performance of this contract which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the Contracting Officer.
- (e) Unauthorized marking of data. (1) Notwithstanding any other provisions of this contract concerning inspection or acceptance, if any data delivered under this contract are marked with the notices specified in subparagraph (g)(2) or (g)(3) of this clause and use of such is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.
- (i) The Contracting Officer shall make written inquiry to the Contractor affording the Contractor 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;

(ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

- (iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer shall consider such written justification and determine whether or not the markings are to be cancelled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor shall be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer shall furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.
- (2) The time limits in the procedures set forth in sub-paragraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.
- (3) This paragraph (e) does not apply if this contract is for a major system or for support of a major system by a civilian agency other than NASA and the U.S. Coast Guard agency subject to the provisions of Title III of the Federal Property and Administrative Services Act of 1949.
- (4) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by this paragraph (e) from bringing a claim under the Contract Disputes Act, including pursuant to the Disputes clause of this contract, as applicable, that may arise as the result of the Government removing or ignoring authorized markings on data delivered under this contract.
- (f) Omitted or incorrect markings. (1) Data delivered to the Government without either the limited rights or restricted rights notice as authorized by paragraph (g) of this clause, or the copyright notice required by paragraph (c) of this clause, shall be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor—
 - (i) Identifies the data to which the omitted notice is to be applied;

(ii) Demonstrates that the omission of the notice was inadvertent;

- (iii) Establishes that the use of the proposed notice is authorized; and
- (iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.
- (2) The Contracting Officer may also (i) permit correction at the Contractor's expense of incorrect notices if the Contractor identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized, or (ii) correct any incorrect notices.
- (g) Protection of limited rights data and restricted computer software. (1) When data other than that listed in subdivisions (b)(1)(i), (ii), and (iii) of this clause are specified to be delivered under this contract and qualify as either limited rights data or restricted computer software, if the Contractor desires to continue protection of such data, the Contractor shall withhold such data and not furnish them to the Government under this contract. As a condition to this withholding, the Contractor shall identify the data being withheld and furnish form, fit, and function data in lieu thereof. Limited rights data that are formatted as a computer data base for delivery to the Government are to be treated as limited rights data and not restricted computer software.
 - (2) [Reserved]
 - (3) [Reserved]
- (h) Subcontracting. The Contractor has the responsibility to obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly bring such refusal to the attention of the Contracting Officer and not proceed with subcontract award without further authorization.
- (i) Relationship to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

(End of Clause)

I.3 RIGHTS TO PROPOSAL DATA (TECHNICAL) (FAR 52.227-23) (JUN 1987)

Except for data containing Internal Assembly & Test Worksheets and Internal Manufacturing Instructions and Processes, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data--General" clause contained in this contract) in and to the technical data contained in the proposal dated January 10, 2007, upon which this contract is based.

(End of Clause)

I.4 NOTIFICATION OF CHANGES (FAR 52.243-7) (APR 1984)

(a) Definitions. "Contracting Officer," as used in this clause, does not include any representative of the Contracting Officer.
"Specifically authorized representative (SAR)," as used in this clause, means any person the Contracting Officer has so designated by written notice (a copy of which shall be provided to the Contractor) which shall refer to this subparagraph and shall be issued to the designated representative before the SAR exercises such authority.

- (b) Notice. The primary purpose of this clause is to obtain prompt reporting of Government conduct that the Contractor considers to constitute a change to this contract. Except for changes identified as such in writing and signed by the Contracting Officer, the Contractor shall notify the Administrative Contracting Officer in writing promptly, within fourteen (14) calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the Contractor regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state—
- (1) The date, nature, and circumstances of the conduct regarded as a change;
- (2) The name, function, and activity of each Government individual and Contractor official or employee involved in or knowledgeable about such conduct;
- (3) The identification of any documents and the substance of any oral communication involved in such conduct;
- (4) In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;
- (5) The particular elements of contract performance for which the Contractor may seek an equitable adjustment under this clause, including--
- (i) What contract line items have been or may be affected by the alleged change;
- (ii) What labor or materials or both have been or may be added, deleted, or wasted by the alleged change;
- (iii) To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change;
- (iv) What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and

(6) The Contractor's estimate of the time by which the Government must respond to the Contractor's notice to minimize cost, delay or disruption of performance.

- (c) Continued performance. Following submission of the notice required by (b) above, the Contractor shall diligently continue performance of this contract to the maximum extent possible in accordance with its terms and conditions as construed by the Contractor, unless the notice reports a direction of the Contracting Officer or a communication from a SAR of the Contracting Officer, in either of which events the Contractor shall continue performance; provided, however, that if the Contractor regards the direction or communication as a change as described in (b) above, notice shall be given in the manner provided. All directions, communications, interpretations, orders and similar actions of the SAR shall be reduced to writing promptly and copies furnished to the Contractor and to the Contracting Officer. The Contracting Officer shall promptly countermand any action which exceeds the authority of the SAR.
- (d) Government response. The Contracting Officer shall promptly, within fourteen (14) calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer shall either--
- (1) Confirm that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance;
- (2) Countermand any communication regarded as a change;
- (3) Deny that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance; or
- (4) In the event the Contractor's notice information is inadequate to make a decision under (1), (2), or (3) above, advise the Contractor what additional information is required, and establish the date by which it should be furnished and the date thereafter by which the Government will respond.
- (e) Equitable adjustments. (1) If the Contracting Officer confirms that Government conduct effected a change as alleged by the Contractor, and the conduct causes an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under this contract, whether changed or not changed by such conduct, an equitable adjustment shall be made—
- (i) In the contract price or delivery schedule or both; and
- (ii) In such other provisions of the contract as may be affected.
- (2) The contract shall be modified in writing accordingly. In the case of drawings, designs or specifications which are defective and

for which the Government is responsible, the equitable adjustment shall include the cost and time extension for delay reasonably incurred by the Contractor in attempting to comply with the defective drawings, designs or specifications before the Contractor identified, or reasonably should have identified, such defect. When the cost of property made obsolete or excess as a result of a change confirmed by the Contracting Officer under this clause is included in the equitable adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of the property. The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractor's failure to provide notice or to continue performance as provided, respectively, in (b) and (c) above. NOTE: The phrases "contract price" and "cost" wherever they appear in the clause, may be appropriately modified to apply to cost-reimbursement or incentive contracts, or to combinations thereof.

(End of Clause)

I.5 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2) (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

http://www.acquisition.gov/far/index.html
http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm
(End of Clause)

I.6 OMBUDSMAN (NFS 1852.215-84) (OCT 2003)

- (a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and contractors during the preaward and postaward phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution.
- (b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman,

Dr. Sunil Dutta

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21000 Brookpark Road, Mail Stop 3-9
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Telephone: (216) 433-8844
FAX: (216) 433-2946

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Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Director of the Contract Management Division, at 202-358-0445, facsimile 202-358-3083, e-mail james.a.balinskas@nasa.gov. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the contracting officer or as specified elsewhere in this document.

(End of Clause)

I.7 SMALL BUSINESS SUBCONTRACTING REPORTING (NFS 1852.219-75) (MAY 1999)

- (a) The Contractor shall submit the Summary Subcontract Report (Standard Form (SF) 295) semiannually for the reporting periods specified in block 4 of the form. All other instructions for SF 295 remain in effect.
- (b) The Contractor shall include this clause in all subcontracts that include the clause at FAR 52.219-9.

(End of Clause)

I.8 ENGINEERING CHANGE PROPOSALS (NFS 1852.243-70) (OCT 2001) (ALTERNATE I) (JUL 1997) and ALTERNATE II (SEP 1990)

(a) Definitions.

"ECP" means an Engineering Change Proposal (ECP) which is a proposed engineering change and the documentation by which the change is described, justified, and submitted to the procuring activity for approval or disapproval.

- (b) Either party to the contract may originate ECPs. Implementation of an approved ECP may occur by either a supplemental agreement or, if appropriate, as a written change order to the contract.
- (c) Any ECP submitted to the Contracting Officer shall include a "not-to-exceed" estimated cost increase or decrease adjustment amount, if any, and the required period of performance adjustment, if any, acceptable to the originator of the ECP. If the change is originated within the Government, the Contracting Officer shall obtain a written agreement with the contractor regarding the "not-to-exceed" estimated

cost and period of performance adjustments, if any, prior to issuing an order for implementation of the change. An ECP accepted in accordance with the Changes clause of this contract shall not be considered an authorization to the Contractor to exceed the estimated cost in the contract Schedule, unless the estimated cost is increased by the change order or other contract modification.

- (d) After submission of a contractor initiated n ECP, the contracting officer may require the contractor to submit the following information:
- (1) Cost or pricing data in accordance with FAR 15.403-5 if the proposed change meets the criteria for its submission under FAR 15.403-4; or
- (2) Information other than cost or pricing data adequate for contracting officer determination of price reasonableness or cost realism. The contracting officer reserves the right to request additional information if that provided by the contractor is considered inadequate for that purpose. If the contractor claims applicability of one of the exceptions to submission of cost or pricing data, it shall cite the exception and provide rationale for its applicability.
- (e) If the ECP is initiated by NASA, the contracting officer shall specify the cost information requirements, if any.
- (f) If the Estimated cost adjustment proposed for any Contractor-originated ECP is \$50,000 or less, the ECP shall be executed with no adjustment to the contract estimated price.

(End of Clause)

[END OF SECTION]

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PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

J.1 LIST OF ATTACHMENTS - NEGOTIATED (GRC 52.215-102) (AUG 2002)

The following documents are attached hereto and made a part of this contract:

ATTACHM	ENT TITLE	# 0:	F PAGES
(A)	Statement of Work		21
(B)	Actuator Performance Specification		33
(C)	Data Procurement Document		99
(D)	Small Business Subcontracting Plan		TBD
(E)	Safety, Health and Environmental (SHE) Plan		TBD
(F)	System Safety Plan		TBD
(G)	Quality Plan		TBD
(H)	Reliability and Maintainability Program Plan		TBD
(I)	Manufacturing and Assembly Plan		TBD

(End of Clause)

J.2 DOCUMENT DISTRIBUTION REQUIREMENTS (GRC 52.227-104) (JUL 2003)

(a) Reports and other documentation shall be submitted prepaid to the recipients specified below, addressed as follows:

National Aeronautics and Space Administration
Glenn Research Center
ATTN: ______, Mail Stop_____ [AS SPECIFIED BELOW]
Contract NNC07CA01C
Cleveland, OH 44135

(b) The following list designates the recipients of reports and other documentation which are required to be delivered to the Glenn Research Center by the Contractor.

NASA Contracting Officer (CO): MS 500-319

Small Business Officer (SBO): MS 500-313

Technology Transfer & Partnership Office (TT&P): MS 4-2

Safety and Mission Assurance Directorate (SMAD): MS 6-3

Financial Management Division (FMD): MS 500-303

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NASA Contracting Officer's Technical Representative (COTR): MS 500-103

(c) The following table indicates the type and number of reports and other documentation to be submitted to each recipient.

Work Plan: SMAD - 1, COTR - 1

Product Assurance Plan: CO - 1, SMAD - 1, COTR - 1

New Technology Reports: CO - 1, TT&P - 1, COTR - 1

Small Business Reports: CO - 1, SBO - 1

Costing Run-Out Reports: CO - 1, FMD - 1, COTR - 1

Technical Progress Reports: CO - 1, COTR - 1

Financial Management (533) Reports: CO - 1, SMAD - 1, FMD - 1, COTR - 1

Any Other Reports or Requests Requiring Contractor's Signature: CO - 1, COTR - 1

Draft Final Report: COTR - 1

Final Report: CO - 1, TT&P - 1, COTR - 4

(End of Clause)

[END OF SECTION]